

Abstract

Apparatus (10) for capturing wave energy in a body of water such as the sea. The apparatus (10) rests on the seabed and comprises a body structure (11) having a portion such as a flexible diaphragm (19) adapted to deflect in response to wave action. Pumps (51), each defining a pumping chamber (55), are adapted to undergo expansion and contraction in response to deflection of the portion of the body structure. Each pumping chamber (55) has an inlet (61) communicating with the seawater and an outlet (62), whereby seawater is drawn into the pumping chamber upon volume expansion thereof from the pumping chamber and is discharged through the outlet upon volume reduction thereof through the outlet. The diaphragm (19) typically comprises a substantially rigid portion (21) and a flexible portion (23), with the pumps (51) operably connected to the rigid portion. There may be a plurality of said rigid portions (21) adapted for articulation one with respect to another to define an articulated structure. Where there are a plurality of rigid portions, they may be disposed in a concatenate relationship extending in the direction of wave travel.